Docket No.: A8130.0157/P157
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jeffrey Wyman et al.

Application No.: 10/679,438

Confirmation No.: 3674

Filed: October 7, 2003

Art Unit: 3731

For: SUTURE RETRIEVER WITH IN-LINE ACTUATING HANDLE

Examiner: K. C. Sonnett

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal Brief for an appeal pursuant to 35 U.S.C. § 134 and 37 C.F.R. § 41 from the final rejection of claims 1-5, 11 and 12 of the above-identified application mailed July 27, 2010. The Notice of Appeal was filed on October 27, 2010 together with a Pre-Appeal Brief Request for Review. A Notice of Panel Decision was mailed on December 16, 2010, indicating that the application remains under appeal and that applicant is required to submit an appeal brief under 37 C.F.R. § 41.37.

The fees required under § 41.20(b)(2) are addressed in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

I.	Real Party In Interest
II	Related Appeals and Interferences
III.	Status of Claims
IV.	Status of Amendments
V.	Summary of Claimed Subject Matter
VI.	Grounds of Rejection to be Reviewed on Appeal
VII.	Argument
VIII.	Claims
Appendix A	Claims
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Appendix C	Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Arthrex, Inc., a Delaware corporation, the assignee of this application.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 7 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 6-10, 13-16
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1-5, 11 and 12
4. Claims allowed: none
5. Claims rejected: 1-5, 11 and 12

C. Claims On Appeal

The claims on appeal are claims 1-5, 11, 12.

IV. STATUS OF AMENDMENTS

Appellants did not file an Amendment after the Final Rejection dated July 27, 2010 ("Final Rejection"). Instead, Appellants filed a Pre-Appeal Brief Request for Review together with a Notice of Appeal on October 27, 2010. A Notice of Panel Decision was mailed on December 16, 2010, indicating that the application remains under appeal and that applicant is required to submit an appeal brief under 37 C.F.R. § 41.37.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In the discussion below, reference is made to the specification and drawings for exemplary embodiments of the invention covered by the claims. The specification and drawings references are not be considered as limiting the scope of the invention as defined by the claims.

The claimed invention relates to a suture retriever arthroscopic instrument with an in-line actuating handle (title). According to independent claim 1 of the application, the arthroscopic suture retriever instrument comprises "a shaft having a sharp distal tip for capturing and retrieving suture within a patient's body," "an articulating mechanism disposed on the shaft and in communication with the sharp distal tip" and "a handle extending from the shaft" (application at 4, lines 17-22; ¶[0019]; Figs. 1-4; reference characters 100, 10, 15, 20, 25, 28). The instrument recited in claim 1 also comprises "a single lever disposed pivotably on the handle and manipulable by a user's thumb, while the handle is held across the palm of the user's hand and the handle is gripped in the user's hand and the shaft extends distally away from the user's thumb, to toggle in an arc between two opposed positions, the two opposed positions being symmetric with respect to each other relative to a direction transverse to a longitudinal axis of the shaft" (application at 5, lines 12-15 and 21-24; ¶[0021]; Figs. 1-4; reference characters 14, 15, 28).

According to independent claim 1, the instrument further comprises "a rod extending along the shaft and linking the articulating mechanism to the lever, wherein the lever includes a cam mechanism that engages and cooperates with the rod through a spring that pushes the rod against a cam surface and moves the rod longitudinally within the shaft to operate the articulating mechanism" (application at 5, lines 17-21 and 24-25; at 6, lines 1-3; ¶[0021]; at 6, lines 12-14; ¶[0023]; at 6, lines 16-19; ¶[0024]; Figs. 1-4; reference characters 14, 16, 18, 19, 28).

Independent claim 11 recites an "arthroscopic instrument" comprising "a shaft having a sharp distal tip for capturing and retrieving suture within a patient's body," "an articulating mechanism disposed on the shaft and in communication with the sharp distal tip" and "a multi-member, pliers-like grip" that includes "a curved stationary handle extending from the shaft" and "a curved movable lever disposed pivotably and manipulable by a user between two positions" (application at 8, lines 19-24; ¶[0029]; Fig. 8; reference characters 400, 310, 320, 325). Independent claim 11 further recites "a rod extending along the shaft and linking the articulating mechanism to the lever" and "a spring arrangement disposed between the curved stationary handle and the curved movable lever to urge the instrument into a normally open position, wherein the stationary handle and the movable lever have substantially similar but opposite curved shapes and are disposed substantially symmetric relative to a longitudinal axis of the instrument when the stationary handle and the movable lever are in a closed position" (application at 8, line 24; at 9, lines 1-8; ¶[0029]; Fig. 8; reference characters 400, 310, 314, 315, 328, 320, 325).

According to claim 11, "the stationary handle and the movable lever are asymmetrical with respect to the longitudinal axis of the instrument when the stationary handle and the movable lever are in an open position, and wherein the stationary handle and the movable lever are adapted to be gripped by a user's palm without the need for finger or thumb rings" (application at 9, lines 8-15; ¶[0029]; Fig. 8; reference characters 400, 310, 314, 315).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nord (U.S. Patent No. 6,074,403) ("Nord") in view of Miller (U.S. Patent No. 2,518,994) and Schmidt et al. (U.S. Patent No. 5,456,684) ("Schmidt").

Claims 11 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nord in view of Dingler (U.S. Patent No. 6,071,299) ("Dingler").

VII. ARGUMENT

Claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nord in view of Miller and Schmidt. Claims 11 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nord in view of Dingler. These rejections are respectfully traversed for at least two reasons: (i) Nord, Miller, Schmidt and Dingler do not disclose or suggest all limitations of claims1-5, 11 and 12; and (ii) a person of ordinary skill in the art would not have been motivated to combine the cited prior art references, to arrive at the claimed subject matter.

THE CITED PRIOR ART REFERENCES DO NOT DISCLOSE OR SUGGEST ALL LIMITATIONS OF THE CLAIMED INVENTION

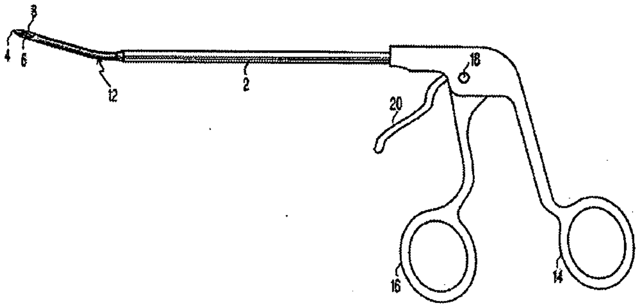
Nord, Miller, Schmidt and Dingler (considered alone or in combination) do not disclose or suggest all limitations of independent claims 1 and 11. Nord specifically teaches against the claimed invention and, thus, Nord cannot disclose or suggest all limitations of the claimed invention. In addition, there would be absolutely no motivation for one skilled in the art to consider Nord (or to combine Nord with any other reference) to arrive at the claimed invention. In the "Background of the Invention" section of the present application, the inventors describe Nord (U.S. Pat. No. 6,074,403) in ¶¶[0002]-[0004] as follows:

> [0002] A hand instrument for retrieving suture within a patient is known from U.S. Pat. Nos. 6,074,403, issued Jun. 13, 2000 to Nord, and U.S. Pat. No. 6,517,552, issued Feb. 11, 2003 to Nord et al. An example of a prior art hand instrument is illustrated in FIG. 9.
>
> [0003] Referring to FIG. 9, a suture retriever includes a shaft 1 having a sharp distal tip 2. An opening 3 is formed in the shaft 2. A hinged jaw 4, shown in the closed position in FIG. 9, covers the opening 3. Shaft 1 is provided with a 15 degree upward bend 5. The jaw 4 is operated by a hand mechanism that includes a stationary thumb loop 6 and a moveable finger loop 7 secured by pivot 8. Moveable finger loop 7 actuates closing and opening of jaw 4 by way of a direct connection between the actuating mechanism and the jaw. A camlock mechanism operated by lever 9 locks the jaw in a closed position, for example, to facilitate insertion of the suture retriever through tissue.

> [0004] Since the introduction of the instruments set forth in the above-noted patent, it has been found that most surgeons do not actually utilize the finger loops during surgery, but instead prefer to activate the instrument jaw by simply pushing on the outside of the moveable finger loop.

To overcome the disadvantages of Nord, the inventors state in the application that "it would be desirable to provide an instrument with a simplified actuating mechanism which facilitates use of the instrument during surgery" (¶[0004]) proposing, instead, an instrument which is operated by a single digit while the handle is held in the user's hand (¶[0006]). These distinguishing features of the present invention are recited in independent claims 1 and 11. Thus, for at least this reason, Nord does not disclose or suggest all limitations of the claimed invention, and one skilled in the art would certainly not have been motivated to consider Nord (much less to combine Nord with other prior art references) to arrive at the claimed invention.

Certainly, Nord does not disclose or suggest "a single lever disposed pivotably on the handle and manipulable by a user's thumb, while the handle is held across the palm of the user's hand and the handle is gripped in the user's hand and . . . to toggle in an arc between two opposed positions, the two opposed positions being symmetric with respect to each other relative to a direction transverse to a longitudinal axis of the shaft," as claim 1 recites. As shown in Fig. 1 of Nord (reproduced below), the suture retriever of Nord is provided with a lever 20 which "locks the jaw in a closed position" (col. 2, ll. 62-63). Lever 20 of Nord is not designed to "toggle in an arc between two opposed positions . . . being symmetric with respect to each other relative to a direction transverse to a longitudinal axis of the shaft," as in the claimed invention.



Nord also fails to disclose or suggest an instrument with a handle that is "held across the palm of the user's hand and the handle is gripped in the user's hand," as in the claimed invention. The instrument of Nord is provided with a plurality of finger loops (which is exactly what the claimed invention teaches against) and not with a single handle and actuating mechanism that allow easier manipulation by surgeons and elimination of the finger loops of Nord.

As acknowledged by the examiner, Nord also fails to disclose a "lever [that] includes a cam mechanism that engages and cooperates with the rod through a spring that pushes the rod against a cam surface and moves the rod longitudinally within the shaft to operate the articulating mechanism."

Miller and Schmidt fail to address the deficiencies of Nord. None of the two cited references discloses or suggests an instrument designed to eliminate the prior art finger loops and with a handle that is "held across the palm of the user's hand and the handle is gripped in the user's hand," to allow a lever on the handle to be "manipulable by a user's thumb," as in the claimed invention.

Miller teaches a forceps with "a trigger-like finger lever 25 . . . pivoted on a pin 26" (col. 2, ll. 36-37; Figs. 1 and 2, reproduced below). Clearly, the handle of the forceps of Miller cannot be "held across the palm of the user's hand" and also "gripped in the user's hand," to allow a lever on the handle to be "manipulable by a user's thumb." In fact, Miller specifically teaches that "the finger lever 25 is depressed by the index finger" (col. 3, ll. 30-31), and not by a thumb.

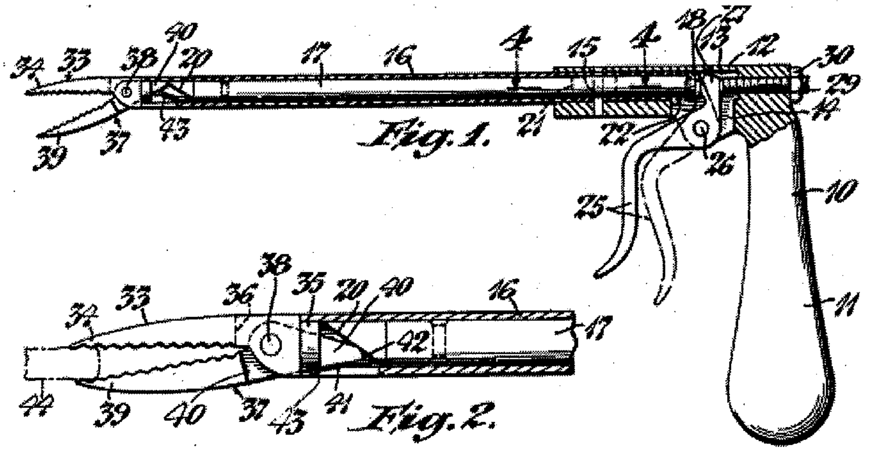


Fig. 1.

Fig. 2.

In any event, Miller fails to disclose or suggest “a single lever disposed pivotably on the handle and manipulable by a user’s thumb” much less “a single lever disposed pivotably on the handle and manipulable by a user’s thumb, while the handle is held across the palm of the user’s hand and the handle is gripped in the user’s hand.” As noted above, the finger lever 25 of Miller (which would arguably correspond to the “single lever” of the claimed invention) is not located on a handle that is gripped by the user (while the handle extends across the palm).

Finger lever 25 of Miller (which would arguably correspond to the “single lever” of the claimed invention) is also not designed to “toggle in an arc between two opposed positions, the two opposed positions being symmetric with respect to each other relative to a direction transverse to a longitudinal axis of the shaft,” as claim 1 recites. Finger lever 25 of Miller cannot toggle in an arc between two opposed, symmetrical positions simply because the instrument of Miller is completely different from that of the claimed invention.

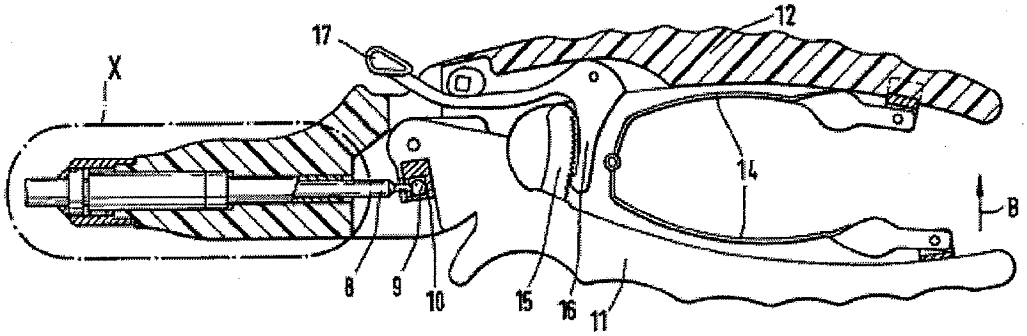
Schmidt teaches an instrument that can perform a multitude of tasks such as grasping, manipulating, retracting, cutting, cauterizing, irrigation, suction, and electrosurgery functions (abstract), and not the specific structural limitations of the claimed invention. The instrument of Schmidt is provided with a tool assembly (having jaws, cutting blades and a suction/irrigation tip) and with a handle that has finger loops 26, 28, a trigger 31 and switches and buttons 32, 34, 36. Trigger 31 of Schmidt (which would arguably correspond to the “single lever” of the claimed invention) is not designed to be actuated by a thumb and is not part of a handle that is held across the palm of the user's hand and gripped in the user's hand. Again, Schmidt teaches an instrument with finger loops and this is exactly what the claimed invention is teaching against.

A person skilled in the art would also not have been motivated to consider any of Nord, Miller or Schmidt, as all these references are directed to handles with finger loops (Nord and Schmidt) and handle member and hand grip (Miller) which do not permit the handles of these references to be held across the palm of the user's hand and gripped in the user's hand (while the surgeon actuates a lever by simply using the thumb). The claimed invention teaches exactly against these references and, thus, one skilled in the art would simply not be motivated to consider them (much less to combine them) to arrive at the claimed invention.

Nord and Dingler (alone or in combination) also do not disclose or suggest all limitations of claims 11 and 12. As noted above, Nord specifically teaches against the claimed invention and, thus, Nord cannot disclose or suggest all limitations of the claimed invention. In addition, there would be absolutely no motivation for one skilled in the art to consider Nord (or to combine Nord with any other reference) to arrive at the subject matter of claim 11.

Nord teaches a finger ring-actuated structure for a suture retrieving device (which is finger-operated in a scissor-like mode), and not a structure with a "pliers-like grip" and with a stationary handle and a movable lever that are "adapted to be gripped by a user's palm without the need for finger or thumb rings," as claim 11 recites. Nord fails to illustrate a handle with "a multi-member, pliers-like grip" to allow a user to manipulate the instrument without using fingers or thumb rings. The instrument of Nord is not provided with a handle "adapted to be gripped by a user's palm without the need for finger or thumb rings," as in the claimed invention.

Dingler fails to address the deficiencies of Nord. Dingler does not disclose or suggest an "arthroscopic instrument" with "a shaft having a sharp distal tip for capturing and retrieving suture within a patient's body," as claim 11 recites. The instrument of Dingler (shown below) is a forceps insert, and not a suture retrieving instrument with a "sharp distal tip" to retrieve suture passing through body tissue, as in the claimed invention.



Dingler also fails to disclose or suggest an instrument with "a curved stationary handle" and "a curved movable lever" with "a spring arrangement disposed between the curved stationary handle and the curved movable lever to urge the instrument into a normally open position," as claim 11 recites. Handle arms 11 and 12 of Dingler are actuated by "a latching block consisting of a tooth latch 15 and a blocking hook 16" (col. 2, ll. 19-20). For this, Dingler teaches that "releasing the latching it is necessary to actuate the lever 17 of the blocking hook 16, by which means the blocking hook 16 comes out of engagement with the tooth latch 15" (col. 2, ll. 20-23). Thus, handle arms 11 and 12 of Dingler are not urged into "a normally open position," and definitely are not urged into "a normally open position" by "a spring arrangement," as in the claimed invention.

A person of ordinary skill in the art would also not have been motivated to consider Nord to arrive at the subject matter of claim 11. Nord was cited as "prior art" by Applicants in the "Background of the Invention" section of the present application, where it is described that "[S]ince the introduction of the instruments set forth in the above-noted patent [the Nord patent], it has been found that most surgeons do not actually utilize the finger loops during surgery, but instead prefer to activate the instrument jaw by simply pushing on the outside of the moveable finger loop" (¶[0004]). Thus, if anything, Nord teaches against the claimed invention, and one skilled in the art would certainly not have been motivated to consider Nord to arrive at the subject matter of claim 11.

NO MOTIVATION TO COMBINE THE REFERENCES EXISTS

A person skilled in the art would also not have been motivated to consider any of Nord, Miller or Schmidt, as all these references are directed to handles with finger loops (Nord and Schmidt) and handle member and hand grip (Miller) which do not permit the handles of these references to be held across the palm of the user's hand and gripped in the user's hand (while the surgeon actuates a lever by simply using the thumb). The claimed invention teaches exactly against these references and, thus, one skilled in the art would simply not be motivated to consider them (much less to combine them) to arrive at the claimed invention.

As noted above, Nord teaches against the claimed invention, as Nord was specifically cited as "prior art" by Applicants in the "Background of the Invention" section of the present application, and as certainly one skilled in the art would not have been motivated to consider Nord (which teaches an instrument with finger loops) to arrive at the claimed invention.

A person of ordinary skill in the art would not have been motivated to combine the teachings of Nord with those of Dingler, to arrive at the claimed invention. The crux of Nord is a surgical suture passer having a particular tip with an opening provided with a notch that allows the suture captured to slide into the notch. In contrast, the crux of Dingler is a forceps instrument with an overload buffer 22 (formed as a rubber-elastic part) which is "deformed planely and its periphery bulges out in the radial direction" when overloading occurs (col. 2, ll. 42-44). Thus, a person of ordinary skill in the art would not have been motivated to combine the forceps instrument with the overload buffer of Dingler with the suture manipulator of Nord.

For at least the reasons above, the Office Action fails to establish a *prima facie* case of obviousness, and reversal of the rejection of claims 1-5, 11 and 12 is respectfully requested.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

Dated: January 14, 2011

Respectfully submitted,

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 10/679,438:

1. (Previously presented) An arthroscopic instrument comprising:

a shaft having a sharp distal tip for capturing and retrieving suture within a patient's body;

an articulating mechanism disposed on the shaft and in communication with the sharp distal tip;

a handle extending from the shaft;

a single lever disposed pivotably on the handle and manipulable by a user's thumb, while the handle is held across the palm of the user's hand and the handle is gripped in the user's hand and the shaft extends distally away from the user's thumb, to toggle in an arc between two opposed positions, the two opposed positions being symmetric with respect to each other relative to a direction transverse to a longitudinal axis of the shaft; and

a rod extending along the shaft and linking the articulating mechanism to the lever, wherein the lever includes a cam mechanism that engages and cooperates with the rod through a spring that pushes the rod against a cam surface and moves the rod longitudinally within the shaft to operate the articulating mechanism.

2. (Original) The arthroscopic instrument of claim 1, wherein the handle is unitary and extends longitudinally from the shaft.

3. (Original) The arthroscopic instrument of claim 2, wherein the handle is adapted to be gripped in a user's palm.

4. (Previously presented) The arthroscopic instrument of claim 1, wherein the lever is disposed on an upper side of the handle and is adapted to be manipulated by a single digit.

5. (Previously presented) The arthroscopic instrument of claim 1, wherein the lever is urged by the spring into one of the two opposed positions.

Claims 6-10. (Canceled)

11. (Previously presented) An arthroscopic instrument comprising:

a shaft having a sharp distal tip for capturing and retrieving suture within a patient's body;

an articulating mechanism disposed on the shaft and in communication with the sharp distal tip;

a multi-member, pliers-like grip, the grip including:

a curved stationary handle extending from the shaft; and

a curved movable lever disposed pivotably and manipulable by a user between two positions;

a rod extending along the shaft and linking the articulating mechanism to the lever; and

a spring arrangement disposed between the curved stationary handle and the curved movable lever to urge the instrument into a normally open position,

wherein the stationary handle and the movable lever have substantially similar but opposite curved shapes and are disposed substantially symmetric relative to a longitudinal axis of the instrument when the stationary handle and the movable lever are in a closed position, and wherein the stationary handle and the movable lever are asymmetrical with respect to the longitudinal axis of the instrument when the stationary handle and the movable lever are in an open position, and wherein the stationary handle and the movable lever are adapted to be gripped by a user's palm without the need for finger or thumb rings.

12. (Original) The arthroscopic instrument of claim 11, wherein the stationary handle is unitary and extends generally in a longitudinal direction from the shaft.

Claims 13-16. (Canceled)

APPENDIX B

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

APPENDIX C

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided.